

**AMENDMENTS TO THE SPECIFICATION:**

**Please change the title of the invention as follows:**

**TELECOMMUNICATIONS SYSTEM ~~SIMULTANEOUSLY RECEIVING AND~~  
~~MODULATING AN OPTICAL SIGNAL~~**

On page 1, before the first paragraph, please **insert** the following:

**CROSS-REFERENCE TO RELATED APPLICATION**

This application is a continuation of Application Serial No. 10/243,838, filed on September 18, 2002, which in turn is a continuation of Application Serial No. 09/051,147, now U.S. Patent No. 6,525,855, which is a national filing under 35 U.S.C. § 371 of International Application No. PCT/GB97/01958, the entire contents of all which are hereby incorporated by reference in this application.

On page 1, before line 4, please add:

**BACKGROUND OF THE INVENTION**

**1. Field of the Invention**

On page 1, before line 9, please add:

**2. Related Art**

On page 3, before line 23, please add:

**SUMMARY OF THE INVENTION**

On page 5, before line 26, please add:

**BRIEF DESCRIPTION OF THE DRAWINGS**

On page 7, before line 3, please add:

**DETAILED DESCRIPTION OF EXEMPLARY EMBODIMENTS**

On page 15, beginning at line 11, please make the following change:

For the purposes of demonstrating the concept behind this work, the optical link length was initially only 30m, although much greater lengths will be feasible. The major consideration in this case is optical loss, which affects the upstream path especially. Every 1 dB of optical loss translates into 4dB of upstream electrical loss, which means that the 6dB of power margin at 3 Mbps for the 6 m picocell equates to a 1.5 dB margin in optical loss. Assuming a fibre loss of 0.2 dB/km this gives an optical link length of 7.5 km. For 1 Mbps operation in the 6 m picocell, an optical link length of 30 km will be possible. Figure 18 shows the trade off between optical link length and radio link length for each system data rate based on this assumption of fibre loss.

On page 27, beginning at line 26, please make the following change:

Wireless LAN systems are already finding a niche market for warehousing applications ~~where~~ where the absence of trailing cables is clearly an important consideration. This is therefore an ideal application for the passive picocell, which is able to offer a future proofed service that can be integrated with any additional requirements for voice communications. In the retail sector, the flexibility offered by wireless systems is beginning to be appreciated. For example, electronic point of sale equipment can be moved around easily when the store layout changes. Again, the passive picocell is in a good position to provide this wireless connectivity within an integrated system where future proofing is perhaps the key consideration.

On page 32, beginning at line 2, please make the following change:

In place of the EAM, it would be possible to use an asymmetric Fabry Perot modulator (for example one made from indium phosphide or the like). In this case, modulation is achieved by tuning the modulator (typically by ~~varying~~ varying the refractive index of the material within the FP cavity) between a resonance peak and off-peak. Such a device, whose asymmetry is due to its two reflectors having different reflectivities, would be used in reflection.

On page 33, before line 2, please add:

What is claimed is: